**One Earth Preview**

# Strengthening psychological science for optimal climate communication and action policies

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## Summary

The climate crisis cannot be addressed without substantial societal change. In a recent One Earth Review, van Valkengoed et al. critically evaluate the long-standing claim that psychological distance presents a major barrier to achieving that change. Here I discuss this important critique against the backdrop of the broader challenge facing the application of psychological science to policy.

## Main Text

The first step in addressing any crisis is recognising the need for action. The climate crisis is no different. Action can take a variety of forms from personal to political, but in every instance, people need to perceive and understand the situation they are facing and how it can be addressed. A long-invoked impediment to this perception of the climate crisis is the notion of *psychological distance*. Simply put, this is the claim that people do not take 'enough' action because climate change is perceived as not happening, or happening in the future, in distant places to other people. This idea is intuitively appealing, and to some of us might even appear self-evident: surely if the risks of climate change were psychologically *close* then more people (and governments and corporations) would be doing something[1].

In their important and timely Review article, van Valkengoed et al. provide a salutary lesson about relying on intuition over evidence[2]. Their main claim is that the psychological distance of climate change has been overestimated; they use three lines of argument to support this conclusion. First, they show that opinion polls suggest that most people perceive climate change as happening *now* and *nearby*, not in far-off places in the far-flung future as the psychological distance hypothesis would suggest. Second, they review studies showing that people who perceive climate change as more distant do not necessarily engage in less climate action. Third, experimental studies which have attempted to manipulate the psychological distance of climate change do not find reliable evidence of increases in climate action.

As van Valkengoed et al.[2] acknowledge, they are not the first to question and criticize the role of psychological distance in explaining the reluctance to take climate action. Our Review in 2015[3] pointed to a 'disconnect' between studies of direct experience of climate change and those attempting to manipulate psychological distance in experimental contexts. While the studies of experiences attributed to climate change suggested some merits of reducing psychological distance, the experimental work manipulating psychological distance failed to provide consistent evidence of increases in willingness to take climate action. Despite our optimism back then that further systematic examination of psychological distance might lead to a better understanding and framing of climate-change risk, van Valkengoed et al. demonstrate that the situation has not improved[2].

A key feature that van Valkengoed et al. add to the current discussion is evidence pointing to the fact that most people do not perceive climate change as distant[2]. We might expect this to be the case over recent polls (e.g., the last 5 years): the rise in warnings from the scientific community, and the increase in extreme weather events and disasters are hard to avoid. What is more intriguing is the data showing that as far back as 1997 a Gallup Poll indicated that almost half of respondents believed climate change was already happening[2]. These and other results from long-running polls remind us that the intuitive appeal of taking a psychological construct and using it to explain our (apparent) observations of behaviour need to be grounded in the existing reality.

Nevertheless, these same polls (and others) do highlight a shift in attitudes and perceptions that are tempting to attribute to reductions in the psychological distance of climate change. For example, the same Gallup Poll shows a 20-percentage point increase, from 25 to 45% between 1997 and 2019 in people thinking that global warming will pose a serious threat *in their lifetime*. In a similar vein (and closer to home for the author of this Preview), Australian respondents showed a 23-percentage point increase between 2018 and 2022 (29%-52%) when asked about bushfire prevalence as a result of climate change, and an almost doubling in the proportion of respondents who are "very concerned" about climate change over the same time period (24% to 42%)[4].

These changes in attitude are almost certainly linked to the horrific bushfires the country experienced in the 2019-20 summer. But does an explanation couched in terms of psychological distance add anything to our scientific understanding of why this change in attitude occurred? The temptation to invoke psychological distance is perhaps driven more by its narrative, than its scientific appeal. Journalists are often keen to pick up on the idea, and use it to frame stories about how we might get more people to connect with climate change. And as researchers we have probably been too uncritical in accepting this narrative[5]. Such a practice presents a double-edged sword: while it might engage otherwise hard to reach audiences in a conversation, it runs the risk of putting misplaced confidence in psychologically-informed strategies for increasing climate action[2].

One is put in mind of similar discussions in the literature on behaviour-change and the metaphor of dual-systems thinking. This idea – that human thinking is comprised of one system that operates largely automatically and unconsciously, and one that involves deliberative, rational processes – has become adopted not only amongst (some) psychologists but more widely in debates about economic behaviour, health and public policy. This viewpoint may serve some useful communicative functions, such as conveying the important point that not all human decision making is based on logical or rational principles[6]. However, beyond this pragmatic function, the dual-systems framework has a number of other implications, not all of which are positive. It encourages binary thinking in places where it may not be appropriate, and it invites the view – for which there is very little evidence – that mental processes fall into clusters of aligned features[7].

At its heart, this discussion is about the maturity of the theories and perspectives that psychological science can offer the broader community. van Valkengoed et al. highlight a surprising number of government and NGO communication guidelines and strategies that present the reduction of psychological distance as a key step toward increasing engagement and action[2]. Such an emphasis on apparently sound-science may lead to the use of often limited resources on information campaigns that promote the proximity of climate change, which might be less effective than other techniques such as raising self-

efficacy (e.g., facilitating the uptake of low-carbon-emission behaviours, such as purchasing electric vehicles) [2,8].

The onus must be on the scientific community to test our theories and perspectives as rigorously as we can before we assert their relevance and usefulness for addressing societal problems[7]. Indeed, as van Valkengoed et al. note, the whole idea that *reducing* psychological distance should increase engagement and action is based on but one interpretation of Construal Level Theory[2]. An alternative perspective suggests that increasing proximity could cause people to focus more on the barriers to action (the effortful nature of taking public transport, for instance) than abstract aspects – such as environmental values – which could increase motivation. This apparent flexibility of interpretation makes it much more difficult when we are asked by policymakers to suggest the "best" ways to increase climate engagement. As scientists we know that the answer is often "it depends" – in this case, perhaps it depends on an individual's mental construal of climate change, but this is often not what policymakers want to hear.

In many ways, van Valkengoed et al.[2] contribute to the current broader debate about how we should apply behavioural science to policy most effectively. For example, discussions about the impact of simple low-cost interventions – so called nudges – are becoming increasingly pointed. Some of these discussions focus on the robustness of underlying theories, perspectives, and effects[9] (a challenge to which Construal Level Theory itself is not immune – see https://climr.org/); while others highlight the difficulties of scaling techniques to become effective societal, or system-level interventions[10].

There is a fine line to walk between over-selling the potential of psychological insights – and thereby potentially undermining our collective credibility – and ensuring that behavioural scientists are at the forefront of addressing the major societal issues of our age. van Valkengoed et al.[2] provide a laudable reminder that in all of these discussions evidence must be paramount.

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